PTO/SB/21 (09-06)
Approved for use through 03/31/2007. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission: 36

Application Number	10/727,231
Filing Date	December 2, 2003
First Named Inventor	Don J. Nguyen
Art Unit	2161
Examiner Name	E. Leroux
Attorney Docket Number	42390.P6078C

ENCLOSURES *(Check all that apply)*

- ☐ Fee Transmittal Form
  - ☐ Fee Attached
- ☐ Amendment/Reply
  - ☐ After Final
  - ☐ Affidavits/declaration(s)
- ☐ Extension of Time Request
- ☐ Express Abandonment Request
- ☐ Information Disclosure Statement
- ☐ Certified Copy of Priority Document(s)
- ☐ Reply to Missing Parts/ Incomplete Application
  - ☐ Reply to Missing Parts under 37 CFR 1.52 or 1.53
- ☐ Drawing(s)
- ☐ Licensing-related Papers
- ☐ Petition
- ☐ Petition to Convert to a Provisional Application
- ☐ Power of Attorney, Revocation Change of Correspondence Address
- ☐ Terminal Disclaimer
- ☐ Request for Refund
- ☐ CD, Number of CD(s) _____
  - ☐ Landscape Table on CD
- ☐ After Allowance Communication to TC
- ☐ Appeal Communication to Board of Appeals and Interferences
- ☑ Appeal Communication to TC **(Appeal Notice, Brief, Reply Brief)**
- ☐ Proprietary Information
- ☐ Status Letter
- ☐ Other Enclosure(s) (please identify below):

Remarks

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name			
Signature	/Lawrence M. Mennemeier/		
Printed name	Lawrence M. Mennemeier		
Date	December 5, 2008	Reg. No.	51,003

CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below:

Signature	/Lawrence M. Mennemeier/		
Typed or printed name	Lawrence M. Mennemeier	Date	December 5, 2008

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: **Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Docket No.: 42390.P6078C

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of:
Don J. Nguyen
Application No. 10/727,231
Filed: December 2, 2003

For: A METHOD AND APPARATUS FOR BATTERY POWER PRE-CHECK AT SYSTEM POWER-ON

Examiner: E. Leroux

Art Unit: 2161

CERTIFICATE OF TRANSMISSION / MAILING

I hereby certify that this correspondence is being transmitted to the USPTO via EFS-Web, or to Fax No. (571) 273-8300, or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

on 12-5-2008 /Lawrence M. Mennemeier/

Date Lawrence M. Mennemeier

APPELLANT'S BRIEF UNDER 37 CFR § 41.37 IN SUPPORT OF APPELLANT'S APPEAL TO THE BOARD OF PATENT APPEALS AND INTERFERENCES

Mail Stop Appeal Brief-Patents
Commissioner of Patents
PO Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Appellant hereby submits this Brief in support of an appeal from a non-final decision of the Examiner, in the above-referenced case. Appellant respectfully requests consideration of this appeal by the Board of Patent Appeals and Interference for allowance of the above-referenced patent application.

TABLE OF CONTENTS

I. Real Party in Interest

The real party in interest in the present appeal is Intel Corporation of Santa Clara, California, the assignee of the present application.

II. Related Appeals and Interferences

There are no related appeals or interferences to appellant's knowledge that would have a bearing on any decision of the Board of Patent Appeals and Interferences.

III. Status of the Claims (independent claims shown in bold)

Claims 1-3, 5-7 9-10, **15**-17, **18**-21 and 23 stand rejected under 35 USC § 102(e) as allegedly being anticipated by US Patent 6,167,289 (Ball).

Claim 4 stands rejected under 35 USC § 103(a) as allegedly being unpatentable over Ball in view of US Patent 4,639,657 (Frierdich).

Claim 11 stands rejected under 35 USC § 103(a) as allegedly being unpatentable over Ball.

Claims 8, 12-14 and 22 are objected to.

Non-final rejection of claims **1**-7, 9-11, **15**-17 and **18**-21 is being appealed.

IV. Status of Amendments

An amendment and response to a first Office Action mailed 5/23/2006 was submitted by appellant on 11/24/2006 and was entered. A Notice of Non-Compliant Amendment was mailed on 1/4/2007. Appellant submitted a corrected amendment and response on 5/4/2007, which was entered. A Final Office Action was mailed on 6/27/2007. A Notice of Appeal was transmitted on 12/27/2007, and an appeal brief was transmitted on 2/27/2008. A Non-final Office Action, reopening prosecution, was mailed on 4/29/2008. A second Notice of Appeal was transmitted on 10/29/2008, and an appeal ensued. Another amendment is being submitted, under 37 CFR § 41.33 and concurrent with the present appeal brief.

Accordingly, the claims stand as of the concurrently submitted amendment of 12/5/2008, and are reproduced in clean form in the Claims Appendix.

V. Summary of Claimed Subject Matter

Appellant's disclosure describes a system, apparatus and a method involving an electronic component and a battery check circuit. When an attempt is made to increase the power consumption level of the electronic component, the power supplied to the electronic component may or may not be changed, depending on a power (charge) level of a battery. The battery check circuit determines whether or not to provide increased power from the battery to the electronic component prior to applying power to the electronic component (a battery power pre-check) by comparing a power level of the battery to a predetermined power level. For example, it may be determined that there is insufficient power to safely power the electronic component when the power switch is actuated in an attempt to turn the system on. Since the battery power pre-check does not apply the requested increased power level from the battery to the electronic component until testing the battery power level, the pre-check may prevent a voltage that is too low and that could potentially harm the component from being applied to the component.

In some embodiments, the battery check circuit may be powered by a separate battery. In some embodiments, the battery check circuit may be disconnected from its power source after it has performed the battery power pre-check. Such disconnection may, for example, save power, as could be particularly useful for embodiments in which the battery power pre-check circuit is powered by a back-up battery.

Claim 1, for example, sets forth a system comprising: at least one electronic component[1]; a back-up battery[2,3] to provide a back-up voltage supply on a back-up supply

[1] "Unfortunately, failing batteries may cause problems for some electronic devices. For example, some electronic devices contain components which do not function properly when insufficient power is supplied." (p. 1, par. 4). "That is, the prior art does not test power levels of the batteries which would otherwise supply power to electronic components before such batteries are allowed to power such electronic components. Consequently, it would be possible for an improperly charged (i.e., overcharged or undercharged) battery to damage such components." (p. 1, par. 4). "The disclosed apparatus and method may advantageously protect components or data in a portable computer system or other battery powered electronic device." (p. 4, par. 2). "Figure 1 illustrates one embodiment of a system utilizing a battery check

node[3]; a battery check circuit to be powered by the back-up voltage supply[3,4] and to determine[4,5], in response to an attempt at system power-on[6], whether to provide power

---

circuit 100. The system may be a laptop or notebook computer, a personal digital assistant, as well as any other type of portable electronic component which is capable of operating on battery power. The illustrated system includes a processor 140, a memory 150, and input/output (I/O) device(s) 160. The processor 140, the memory 150, and the I/O devices 160 receive power via one or more power supply line(s) 137, and transfer information over a bus 145. Many other types and/or combinations of components may be used in a system in combination with the battery check circuit 100." **(p. 5, par. 1; Fig. 1).**

[2] "In some embodiments, the battery check circuit 100 is powered by a back-up battery (not shown); however, in other embodiments the battery check circuit may be able to receive sufficient power from the battery 120." **(p. 6, par. 1; Fig. 1).** "In the embodiment of Figure 4, either AC adapter power on a supply line 402, DC power from the primary or secondary battery (not shown), or a back-up battery 408 may supply power during this initial start-up phase. When external AC power is available, that power not only supplies power for the system, but also recharges the back-up battery via a battery charger 406." **(p. 9, par. 1; Fig. 4, 408).**

[3] "The battery check circuit 300 is powered either by a back-up battery 305 via a supply line 307 or by power from an alternating current (AC) adapter input provided on a supply line 310." **(p. 7, par. 4; Fig. 3).** "A start-up circuit 325 receives power via the start-up supply line 322 and provides a back-up supply voltage on supply line 327." **(p. 8, par. 2; Fig. 3).** "A PWRGOOD signal on a signal line 366 controls a switch 328 and initially opens the switch 328, thereby only providing the back-up supply voltage to the battery check circuit 100 during system startup." **(p. 8, par. 3; Fig. 3).** "The back-up battery 408 is coupled via a supply line 409 and a diode 412 to a node 416." **(p. 9, par. 3; Fig. 4).**

[4] "The disclosed apparatus and method may advantageously protect components or data in a portable computer system or other battery powered electronic device. This protection involves the use of a battery check circuit which determines whether power from a battery should be applied to one or more components by testing a power level of the battery. In some embodiments, a back-up battery may be used to temporarily power the battery check circuit and/or system components while the test is performed." **(p. 4, par. 2).** "Thus, even if the primary battery or batteries have insufficient power, the battery check circuit and the Vccbk rail are powered by the backup battery." **(p. 10, par. 1; Fig. 4).**

[5] "For example, the battery check circuit 100 may determine whether the battery 120 has sufficient power to supply the processor 140 and other components with the proper voltage and/or current level." **(p. 6, lines 6-8).** "In general, the battery check circuit may perform any of a variety of tests which may determine whether the battery 120 may be safely applied to the components without jeopardizing either the components themselves, operation of other components, or any information stored in the system. If the battery 120 fails the test performed by the battery check circuit 100 in step 215, the battery check circuit 100 has determined that there is an unacceptably high risk of malfunction or damage and therefore the battery check circuit 100 does not connect the battery 120 to the system as shown in step 220." **(p. 6, lines 10-17).**

[6] "Many portable computing or other electronic devices are powered by batteries. Inevitably, unless charged, such batteries discharge and are no longer able to maintain operation of their host device. Users, however, often attempt to turn on their portable electronic devices either because they are unaware of the fact that the batteries are discharged or in an attempt to obtain additional operation from the failing batteries." **(p. 1, par. 3).** "Figure 5 illustrates one embodiment of a process performed at system power-on for a system such as one utilizing components in Figures 3 and 4." **(p. 3, par. 5; Fig. 5).** "The following description provides a method and apparatus for battery power pre-check at system power-on." **(p. 4, par. 1).** "The battery check circuit is coupled to an on/off switch 110. In a laptop computer this may be a push-button switch which, when temporarily depressed, indicates that the user wishes to power-on the system. In other embodiments, the power-on may be accomplished by other sensing or mechanical mechanisms. For example, opening the lid of a portable device may be used to signal that the device should be enabled. Alternatively, writing on a touch-pad or moving a mouse, or many other types of stimulus could be received by the battery check circuit 100 to signal system power-on." **(p. 5, par. 2; Fig. 1).** "When the on/off switch